Orange County Health Care Agency Environmental Health Division Site Mitigation Programs

Topics

- Orange County Site Mitigation Programs
- Case Management
- Site Investigation
- Remedial Action
- Case Closure

Orange County Site Mitigation Programs

- Local Oversight Program
- Voluntary Cleanup Program
- Solid Waste

Solid Waste—LEA

- Jurisdiction throughout OC
- Municipal landfills, composters, transfer stations
- 3 Staff, 1 PE, 1 Supervisor, 1 Program Manager
- 40 closed landfill sites, 3 operating landfills

Solid Waste—LEA

- Inspect sites for cover and methane monitoring
  - Closed sites quarterly inspections
  - Open facilities monthly
- Cover is major issue for operating facilities
- Methane is the major concern for closed facilities
- Compaction also an issue
- RWQCB responsible for groundwater issues
- AQMD is responsible for gas emissions to the atmosphere

Voluntary Cleanup Program

- All Non-Petroleum USTs Sources
- Jurisdiction throughout OC
- 60-80 Open Cases
- 1 Staff, Supervisor, Program Manager

Voluntary Cleanup Program

- RP must request to be VCP
- VCP bills RPs for oversight time
- Most cases are oil fields or dry cleaners
- Cases can be referred to RWQCB or DTSC

Local Oversight Program

- Fuel and Waste Oil USTs only
- UST removals
- Jurisdiction throughout OC
  except Anaheim, Santa Ana, Fullerton
- 600 Open Cases
- 7 Staff, 1 RG, 1 PE, 2 Supervisors, 1 Program Manager
- Staff districts by city

Case Management

- Most new cases from UST removals
  - Some from UST upgrades and new leaks
  - A few from independent investigations
- Staff usually decides whether to open a new case or not and who is the Responsible Party
- Staff completes all paperwork for new case
- Staff responsible for all file maintenance

Case Management

- All reports and letters go directly to staff
- Staff reviews submittals in order received
- Staff issues directive letters
  - Workplans
  - Corrections and other revisions to reports
  - Additional supporting information
- Staff reviews and approves workplans and submittals

Case Management

- Staff in constant communication with RPs and consultants
- Many issues resolved verbally to save time
- Case activity logs document case progress
- All documents submitted are kept in the case file
- Files copied often
- Supply well information not available to public

Case Management

- Staff responsible for knowledge of local issues
  - Sensitive receptors
  - Inter-agency relations
  - Other nearby cleanup cases
  - Community concerns

Case Management

- Staff monitors progress of each case
- Site Review Committee reviews “special” cases
  - Site-specific technical issues
  - Unusual site conditions
  - Non-standard site investigation/analysis
  - Potential case closures
- Staff initiates recommendation for case closure

Site Investigation Methods

- Review of historical documents and records
- Grab samples and excavation
- Soil borings
- Groundwater monitoring
- Remediation pilot tests and monitoring

Site Investigation Methods

- Review of historical documents and records
  - Past site use
  - Property ownership
  - Previous structures
  - Environmental data from previous on-site investigation or from nearby sites
  - Scientific literature on regional setting and relevant environmental processes

Site Investigation Methods

- Grab samples and excavations
  - After tank pull
  - At OCHCA direction
  - Worst-case

Site Investigation Methods

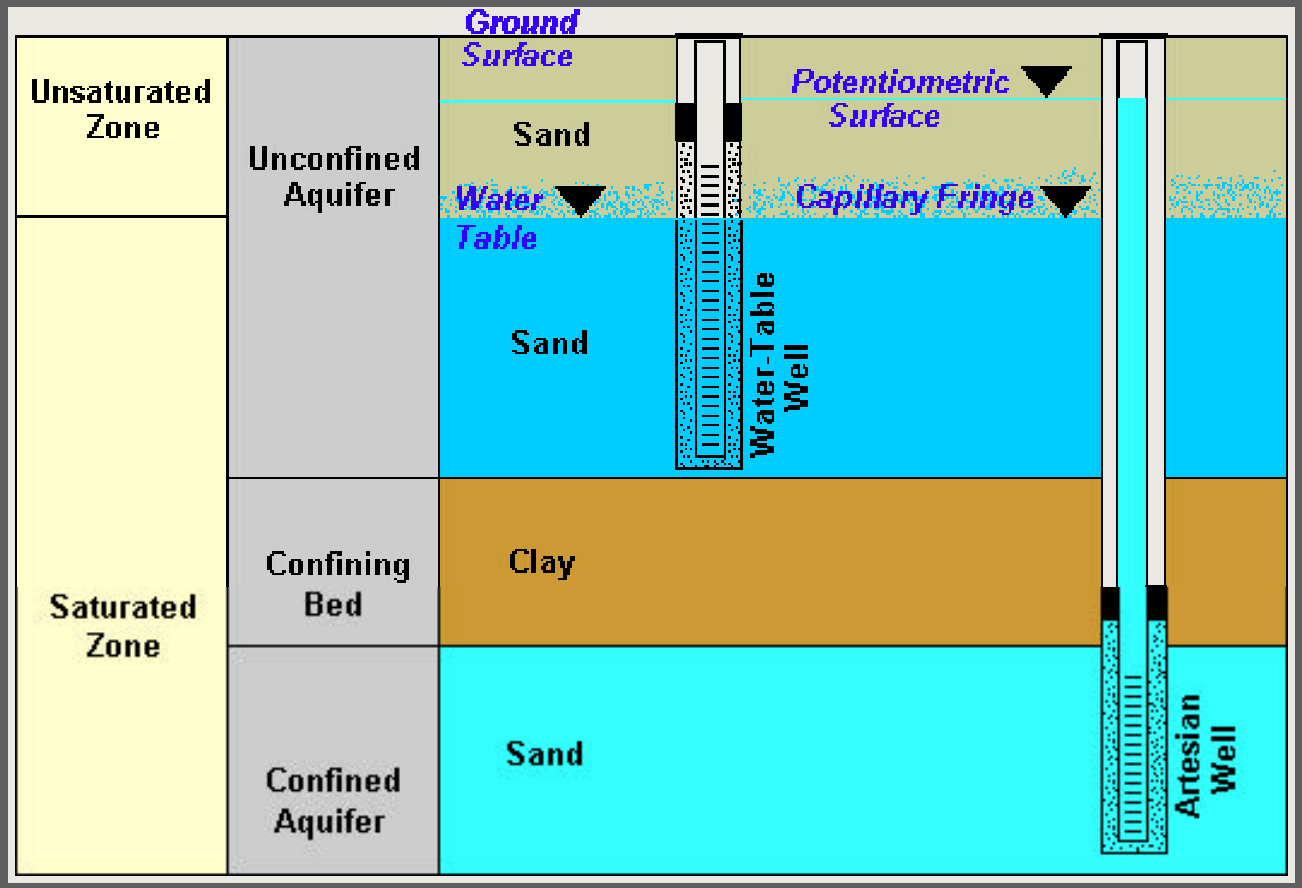
- Grab samples and excavations
  - Sampling plan
  - Witnessed by OCHCA

Site Investigation Methods

- Soil borings

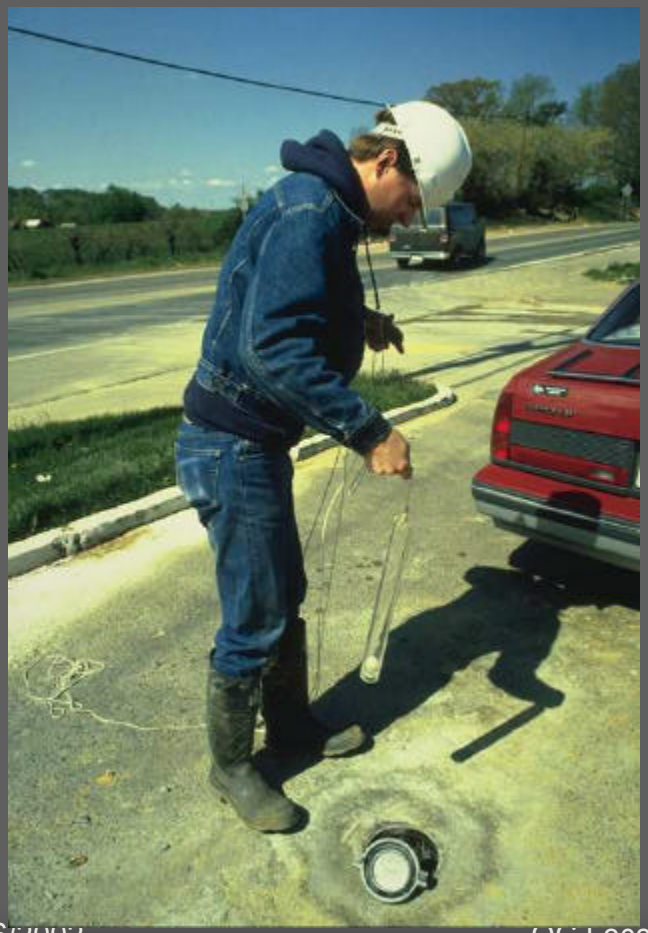
Site Investigation Methods

- Groundwater monitoring



Site Investigation Methods

- Groundwater monitoring



Site Investigation Methods

- Laboratory analytical methods
  - Laboratories must be State-certified
  - EPA Method **8021**
    - BTEX and MTBE only
    - Less expensive
  - EPA Method **8260**
    - Longer list of analytes
    - Better detection limits

Assessment Uncertainty

- Differing interpretations of same data common
- Samples represent small discontinuous parts of the site at one point in time
- Groundwater conditions are not static
- Assessment and monitoring limited by costs and accessibility
- Subsurface soil heterogeneity can be complex
- Modeling based on many assumptions and are hard to verify for any specific site

Corrective Action

- Excavation
- Soil Vapor Extraction
- Groundwater Pump-and-Treat
- Dual-phase Extraction
- Air-Sparging
- Natural Attenuation

Corrective Action Plans

- RP must certify that all stakeholders are notified
- Assessment of impacts
- Conceptual design
- Target cleanup levels
- Remediation pilot tests and monitoring plans
- Verification sampling

Case Closure

- Staff initiates recommendation for case closure
  - Prepares Case Closure Summary
  - Schedules SRC meeting if necessary
- Supervisor, Geologist and Program Manager review each recommendation for closure
  - Revisions to CCS as necessary
  - SRC meeting to clarify issues and/or to evaluate possible alternatives to case closure

Case Closure

- OCHCA submits CCS to RWQCB for concurrence
  - 30-day RWQCB review period
  - Concurrence on CCS and returned to OCHCA
  - Non-concurrence letter sign by Executive Officer
- Notification letter and draft CCS issued to RP(s) for 20-day comment period
- OCHCA issues “no further action” letter or letter explaining why closure has been rejected

The End